

CLAIMS

1. System for the transmission of message traffic in a packet-switched telecommunication system, said system comprising:

5 a network element (1), which comprises a cross-connection part (11) and a control part (12), said cross-connection part (11) comprising at least one unit computer (C_r), and said control part (12) comprising at least one unit computer (C_k), and

10 means (1) for the transmission of internal message traffic within the network element (1) between the unit computers (C_r, C_k),

characterized in that the system further comprises:

15 at least one unit computer (C_r) in the cross-connection part (11) whose message traffic is transmitted by utilizing the universal cross-connections produced by the network element (1) itself, said unit computer (C_r) of the cross-connection part (11) being
20 disposed on a different plug-in unit than the nearest terminal point of the cross-connection it is using for message traffic.

2. System as defined in claim 1, characterized in that the system further comprises:

25 at least one unit computer (C_k) in the control part (12) whose message traffic is transmitted by utilizing the universal cross-connections produced by the network element (1) itself.

3. System as defined in claim as defined in claim 1 or 2, characterized in that the telecommunication system has been implemented using ATM based components.

4. System as defined in claim 3, characterized in that the control part (22) further
35 comprises:

a number of computer units (CU), each one of which comprises a SAR-PHY circuit pair (P/S) and a unit computer (C).

5 5. System as defined in claim 3 or 4, characterized in that the cross-connection part (21) further comprises:

 a number of LIU units (LIU), each one of which comprises a unit computer (C), a SAR-PHY circuit pair (S/P), a PHY circuit (P) and an ATM circuit (A).

10 6. System as defined in any one of claims 3 - 5, characterized in that the cross-connection part (21) further comprises:

 an ATM switching fabric (ASF), which comprises a unit computer (C), a SAR-PHY circuit pair (S/P) and an ATM circuit (A).

15 7. Method for the transmission of message traffic in a packet-switched telecommunication system, said method comprising the steps of:

 transmitting internal message traffic within
20 the network element between the unit computers of the cross-connection part and the unit computers of the control part of said element,

 characterized in that the method further comprises the steps of:

25 transmitting the message traffic of at least one unit computer in the cross-connection part by:

 establishing a universal cross-connection between the sending unit computer and the receiving unit computer,

30 transmitting the message traffic from the sending unit computer, said unit computer in question being disposed on a different plug-in unit than the nearest terminal point of the cross-connection it is using for the message traffic,

35 transmitting the message traffic to the receiving unit computer, and
 disconnecting the cross-connection.

8. Method as defined in claim 7, characterized in that the method further comprises the step of:

- 5 transmitting the message traffic of at least one unit computer of the control part by utilizing the universal cross-connections produced by the network element itself.

9. Method as defined in claim 7 or 8, characterized in that the method further comprises the step of:

10 distributing the functions of the control part among the plug-in units of the cross-connection part.

10. Method as defined in any one of claims 7 - 9, characterized in that the method further comprises the step of:

transmitting message traffic in an ATM telecommunication system.